

# **OVERVIEW**



1. USB-A (USB 5Gbps)	5. USB-C (USB 20Gbps), with USB PD 3.1 & DP 1.4				
2. Ethernet (RJ-45)	6. Thunderbolt 4				
3. Kensington Nano Security Slot	7. USB-A (USB 10Gbps), Always On				
4. HDMI	8. Headphone / microphone combo jack (3.5mm)				



## **PERFORMANCE**

### **Processor**

### **Processor Family**

- Intel® U Series Core 3 Processor (Series 1) Raptor Lake (RPL)
- Intel® U or H Series Core 5 / 7 Processor (Series 2) Raptor Lake (RPL)
- Intel® U or H Series Core Ultra 5 / 7 Processor (Series 2) Arrow Lake (ARL)

#### Processor\*\*

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Processor Graphics	Intel® vPro® Eligibility	NPU	Overall TOPS
Core 3 100U (RPL)	6 (2 P- core + 4 E-core)	8	P-core 1.2GHz / E-core 900MHz	P-core 4.7GHz / E-core 3.3GHz	10MB Intel® Smart Cache	Intel® Graphics	-	-	-
Core 5 210H (RPL)	8 (4 P- core + 4 E-core)	12	P-core 2.2GHz / E-core 1.6GHz	P-core 4.8GHz / E-core 3.6GHz	12MB Intel® Smart Cache	Intel® Graphics	-	-	-
Core 5 220U (RPL)	10 (2 P- core + 8 E-core)	12	P-core 1.4GHz / E-core 900MHz	P-core 5.0GHz / E-core 3.8GHz	12MB Intel® Smart Cache	Intel® Graphics	-	-	-
Core 7 240H (RPL)	10 (6 P- core + 4 E-core)	16	P-core 2.5GHz / E-core 1.8GHz	P-core 5.2GHz / E-core 4.0GHz	24MB Intel® Smart Cache	Intel® Graphics	-	-	-
Core 7 250U (RPL) <sup>[1]</sup>	10 (2 P- core + 8 E-core)	12	P-core 1.8GHz / E-core 1.2GHz	P-core 5.4GHz / E-core 4.0GHz	12MB Intel® Smart Cache	Intel® Graphics	-	-	-
Core Ultra 5 225H (ARL)	14 (4 P- core + 8 E-core + 2 LP E- core)	14	P-core 1.7GHz / E-core 1.3GHz / LP E-core 700MHz	P-core 4.9GHz / E-core 4.3GHz / LP E- core 2.5GHz	18MB Intel® Smart Cache	Intel® Arc™ 130T GPU, up to 63 TOPS <sup>[2]</sup>	-	Intel® AI Boost, up to 13 TOPS	Up to 83 TOPS
Core Ultra 5 225U (ARL)	12 (2 P- core + 8 E-core + 2 LP E- core)	14	P-core 1.5GHz / E-core 1.3GHz / LP E-core 700MHz	P-core 4.8GHz / E-core 3.8GHz / LP E- core 2.4GHz	12MB Intel® Smart Cache	Intel® Graphics	-	Intel® AI Boost, up to 12 TOPS	-
Core Ultra 5 235U (ARL)	12 (2 P- core + 8 E-core + 2 LP E- core)	14	P-core 2.0GHz / E-core 1.6GHz / LP E-core 700MHz	P-core 4.9GHz / E-core 4.1GHz / LP E- core 2.4GHz	12MB Intel® Smart Cache	Intel® Graphics	Intel® vPro® Enterprise	Intel® AI Boost, up to 12 TOPS	-
Core Ultra 7 255H (ARL)	16 (6 P- core + 8 E-core + 2 LP E- core)	16	P-core 2GHz / E-core 1.5GHz / LP E-core 700MHz	P-core 5.1GHz / E-core 4.4GHz / LP E-core 2.5GHz	24MB Intel® Smart Cache	Intel® Arc™ 140T GPU, up to 74 TOPS <sup>[3]</sup>	-	Intel® AI Boost, up to 13 TOPS	Up to 96 TOPS
Core Ultra 7 265U (ARL)	12 (2 P- core + 8 E-core + 2 LP E- core)	14	P-core 2.1GHz / E-core 1.7GHz / LP E-core 700MHz	P-core 5.3GHz / E-core 4.2GHz / LP E- core 2.4GHz	12MB Intel® Smart Cache	Intel® Graphics	Intel® vPro® Enterprise	Intel® AI Boost, up to 12 TOPS	-

Notes:

[1] Intel® Core™ 7 250U is for special bid only.



[2], [3] Intel® Arc™ Graphics only available on select H-series Intel® Core™ Ultra processor powered systems with at least 16GB of system memory in a dual-channel configurations, otherwise it will function as Intel® Graphics.

### Al (Artificial Intelligence)

#### **AI PC Category**

AI PC (Arrow Lake)[1]

#### **NPU**

Integrated Intel® AI Boost, up to 13 TOPS

#### Notes:

[1] AI PCs have a NPU capable of 10+ TOPs to run the Copilot assistant by pressing the optional Microsoft® Copilot key or using Win + C.

### **Operating System**

### Operating System\*\*

- Windows® 11 Pro
- Windows® 11 Home
- Windows® 11 Home Single Language
- Ubuntu Linux<sup>[1]</sup>
- · No preload operating system

#### Notes:

[1] Ubuntu Linux is available for MT 21TF/21TG only.

Some features may not be supported on the system with Linux preload, including but not limited to Intel® RST RAID, MIPI computer vision camera, WWAN, Human Presence Detection, etc.

### **Graphics**

### Graphics\*\*

Graphics	Type	Memory	TGP	Key Features
Intel® Arc™ 130T GPU[1]	Integrated	Shared	Share CPU TDP	DirectX® 12.2
Intel® Arc™ 140T GPU <sup>[2]</sup>	Integrated	Shared	Share CPU TDP	DirectX® 12.2
Intel® Graphics	Integrated	Shared	Share CPU TDP	DirectX® 12.2

#### Notes:

[1], [2] Intel® Arc™ graphics only available on select H-series Intel® Core™ Ultra processor powered systems with at least 16GB of system memory in a dual-channel configurations, otherwise it will function as Intel® Graphics.

### **Monitor Support**

#### Monitor Support[1]

Supports up to 4 independent displays (native display and 3 external monitors via HDMI®, USB-C® and Thunderbolt™)

- HDMI® supports up to 4096x2160@60Hz
- USB-C® supports up to 5120x2880@60Hz
- Thunderbolt™ supports up to 7680x4320@60Hz[2]

#### Notes:

[1] Refresh rates >60hz also supported, however max resolution will be limited.

[2] 8K resolution support needs 2 display pipes. That is, simultaneous display number will "-1" when 8K resolution displayed.

### Chipset

#### Chipset

Intel® SoC (System on Chip) platform

### **Memory**

### **Max Memory**

Raptor Lake with U Series processors: up to 64GB DDR5-5200<sup>[1]</sup>



• Raptor Lake with H Series processors and Arrow Lake: up to 64GB DDR5-5600<sup>[2]</sup>

#### **Memory Slots**

Raptor Lake and Arrow Lake: two DDR5 SODIMM slots, dual-channel capable

#### Memory Type\*\*

- Raptor Lake with U Series processors: DDR5-5200[3]
- Raptor Lake with H Series processors and Arrow Lake: DDR5-5600

#### Notes:

[1], [2] The 64GB memory is for special bid only.

[3] Installed memory is actually DDR5-5600 but runs as DDR5-5200 due to platform limitation.

### **Storage**

### **Max Storage Support**

Up to two drives, 2x M.2 SSD

- M.2 2242 SSD up to 1TB
- M.2 2280 SSD up to 1TB[1]

#### Storage Slot[2]

Two M.2 slots

- One M.2 2242 PCIe® 4.0 x4 slot
- One M.2 2280 PCIe® 4.0 x4 slot

#### **Storage Type**

Disk Type	Interface	Offering	Security
M.2 2242 SSD	PCIe® NVMe®, PCIe® 4.0 x4	256GB / 512GB / 1TB	Opal 2.0

#### Notes:

[1] The system supports dual SSD via two M.2 slots, but Lenovo® only offers one M.2 2242 SSD configuration and M.2 2280 slot for user self-extension.

[2] The actual data transfer rate of the following PCIe® interface also depends on the capabilities of the connected PCIe® device. The listed values represent theoretical maximums.

PCle<sup>®</sup> 3.0 (x2 / x4): 2 GB/s (16 Gbps) / 4 GB/s (32 Gbps);

PCle<sup>®</sup> 4.0 (x2 / x4): 4 GB/s (32 Gbps) / 8 GB/s (64 Gbps);

PCIe® 5.0 (x2 / x4): 8 GB/s (64 Gbps) / 16 GB/s (128 Gbps).

### Removable Storage

### Card Reader

No card reader

#### Multi-Media

#### **Audio Chip**

High Definition (HD) Audio, Senary SN6147 codec

### **Speakers**

Stereo speakers, 2W x2, Dolby Atmos®, audio by HARMAN

#### Microphone

Dual-microphone array, 360° far-field, smart noise-cancelling

#### Camera\*\*

- HD 720p, with privacy shutter, fixed focus
- FHD 1080p + IR hybrid, with privacy shutter, fixed focus, temporal noise reduction
- 5.0MP, with privacy shutter, fixed focus, temporal noise reduction

### **Battery**

### Battery\*\*

- 48Wh Rechargeable Li-ion Battery, supports Rapid Charge Pro (charge up to 50% in 30min)<sup>[1]</sup>
- 64Wh Rechargeable Li-ion Battery

### Battery Life[2]

Configuration 1 (max battery life)



MobileMark® 30: up to 11.08 hr with 699 performance score @250nits JEITA-BAT 3.0 (Video/Idle): up to 11.36 hr / 24.08 hr @200nits Local video playback: up to 20.4 hr @150nits

Configuration 2

MobileMark® 30: up to 8.81 hr with 681 performance score @250nits JEITA-BAT 3.0 (Video/Idle): up to 10.3 hr / 18.9 hr @200nits Local video playback: up to 19.5 hr @150nits

Configuration 3

MobileMark® 30: up to 8.6 hr with 868 performance score @250nits JEITA-BAT 3.0 (Video/Idle): up to 7.43 hr / 17.2 hr @200nits Local video playback: up to 15.11 hr @150nits

#### Notes:

[1] Rapid charge is only guaranteed when the computer is turned off or in standby mode or in hibernation mode. When the computer is powered on, the Charge Time will vary depending on system power consumption and AC adapter power.

[2] Configuration 1: WUXGA (non-touch), Intel® Core™ Ultra 5 225U, 16GB DDR5, Win 11, 64Wh battery, best power efficiency power mode

Configuration 2: WUXGA (non-touch), Intel® Core™ 3 100U, 8GB DDR5, Win 11, 64Wh battery, best power efficiency power mode

Configuration 3: WQXGA (non-touch), Intel® Core™ Ultra 7 255H, 64GB DDR5, Win 11, 64Wh battery, best power efficiency power mode

All battery life claims are approximate maximum and based on results using MobileMark® 30, JEITA 3.0, continuous 1080p local video playback (using default Media Player in Fullscreen mode with 150nits brightness and default volume level), or Google Power Load Test (PLT) battery-life benchmark tests.

Actual battery life will vary and depends on many factors such as product configuration, software, wireless functionality, power management settings, and screen brightness.

The maximum capacity of the battery will decrease with time, ambient temperature and use.

Refer to Microsoft® link for more information about the Windows® Performance power slider.

### **Power Adapter**

### Power Adapter\*\*[1]

- 65W USB-C® (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C® (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C® slim (2-pin, wall-mount) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- No power adapter

#### Notes:

[1] AC adapter offerings depend on the country.

### **DESIGN**

### **Display**

#### Display\*\*

Size	Resolution	Touch	Туре	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Refresh Rate	Viewing Angle (L/R/U/D)	Key Features
16"	WUXGA (1920x1200)	Multi- touch	IPS <sup>[1]</sup>	300nits	Anti- glare	16:10	800:1	45% NTSC	60Hz	89° / 89° / 89° / 89°	TÜV Low Blue Light (Software)
16"	WUXGA (1920x1200)	Non- touch	IPS <sup>[2]</sup>	300nits	Anti- glare	16:10	800:1	45% NTSC	60Hz	85° / 85° / 85° / 85°	TÜV Low Blue Light (Software)
16"	WQXGA (2560x1600)	Non- touch	IPS <sup>[3]</sup>	400nits	Anti- glare	16:10	1200:1	100% sRGB	120Hz VRR	89° / 89° / 89° / 89°	Eyesafe® Certified 2.0

### Touchscreen

• In-cell multi-touch, supports 10-point touch



· Non-touch

### Screen-to-Body Ratio

90.7%

Notes:

[1], [2], [3] IPS (in-plane switching) technology may refer to IPS, PLS, ADS, AHVA, AAS.

### **Input Device**

#### Pen

No support

### Keyboard

6-row, spill-resistant, multimedia Fn keys, numeric keypad, key travel 1.5mm / 1.35mm (Fn row & G/H/B), Copilot key

#### **Keyboard Backlight**

- · LED backlight
- · Non-backlight

#### I IItra Nav TV

TrackPoint® pointing device, double-tap to open the TrackPoint® Quick Menu Mylar® surface multi-touch 3-button Trackpad, 67 x 115 mm (2.64 x 4.53 inches)

### Mechanical

### Dimensions (WxDxH)[1]

Models	Dimensions			
Models with aluminium (top) and PC-ABS (bottom)	356 x 249 x 10.1/17.05 (front/rear), 21.95 (maximum) mm; 14.01 x 9.8 x 0.40/0.67 (front/rear), 0.86 (maximum) inches			
Models with aluminium (top) and aluminium (bottom)	356 x 249 x 10.1/17.05 (front/rear), 21.15 (maximum) mm; 14.01 x 9.80 x 0.40/0.67 (front/rear), 0.83 (maximum) inches			

### Weight<sup>[2]</sup>

Starting at 1.63 kg (3.59 lbs)

#### **Case Color**

Black

#### Case Material\*\*

- Aluminium (top), PC-ABS (bottom)
- Aluminium (top), aluminium (bottom)

### Notes:

[1] The system dimensions may vary depending on configurations.

[2] The system weight is approximate and based on results in Lenovo® lab, which varies depending on the source of component, variance of the distribution of each component, and manufacturing process. It may not be the exact weight for each specific model.

### CONNECTIVITY

### **Network**

### WLAN + Bluetooth®\*\*[1]

- Wi-Fi® 6, 802.11ax 2x2 Wi-Fi® + Bluetooth® 5.3, M.2 card
- Realtek® Wi-Fi® 6 RTL8852BE, 802.11ax Dual Band 2x2 Wi-Fi® + Bluetooth® 5.3, M.2 card
- Intel® Wi-Fi® 6 AX203, 802.11ax 2x2 Wi-Fi® + Bluetooth® 5.2, M.2 card
- Wi-Fi<sup>®</sup> 6E, 802.11ax 2x2 Wi-Fi<sup>®</sup> + Bluetooth<sup>®</sup> 5.3, M.2 card
- Intel® Wi-Fi® 6E AX211, 802.11ax 2x2 Wi-Fi® + Bluetooth® 5.3, Intel® vPro® technology support, M.2 card[2]
- Intel® Wi-Fi® 6E AX211, 802.11ax 2x2 Wi-Fi® + Bluetooth® 5.3, M.2 card
- Wi-Fi<sup>®</sup> 7, 802.11be 2x2 Wi-Fi<sup>®</sup> + Bluetooth<sup>®</sup> 5.4, M.2 card
- MediaTek Wi-Fi® 7 MT7925, 802.11be 2x2 Wi-Fi® + Bluetooth® 5.4, M.2 card

### **WWAN**

No support



#### Ethernet\*\*

- Gigabit Ethernet, Intel® Ethernet Connection I219-LM (vPro® models), 1x RJ-45, supports Wake-on-LAN
- Gigabit Ethernet, Intel® Ethernet Connection I219-V (non-vPro® models), 1x RJ-45, supports Wake-on-LAN

#### **NFC**

No support

#### Notes:

[1] Wi-Fi® operation (including Wi-Fi® 6, Wi-Fi® 6E, Wi-Fi® 7, etc.) is subject to the regulatory requirements of each country. Bluetooth® may operate at a lower version than hardware design depending on the factors such as operating system, driver, etc.

[2] Intel® vPro® platform requires the hardware and software necessary to deliver the manageability use cases, security features, system performance, and stability that define the platform. For detailed vPro® support information, please refer to the System Management section.

### **Ports**<sup>[1]</sup>

### **Standard Ports**

- 1x USB-A (USB 5Gbps / USB 3.2 Gen 1)
- 1x USB-A (USB 10Gbps / USB 3.2 Gen 2), Always On
- 1x USB-C® (USB 20Gbps / USB 3.2 Gen 2x2), with USB PD 3.1 and DisplayPort™ 1.4
- 1x USB-C<sup>®</sup> (Thunderbolt<sup>™</sup> 4 / USB4<sup>®</sup> 40Gbps), with USB PD 3.1 and DisplayPort<sup>™</sup> 2.1
- 1x HDMI® 2.1, up to 4K/60Hz
- 1x Headphone / microphone combo jack (3.5mm)
- 1x Ethernet (RJ-45)

#### Notes:

[1] The transfer speed of the ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.

### **Docking**

### **Docking**

Various docking solutions supported via Thunderbolt™ or USB-C®.

For more compatible docking solutions, please visit Docking for ThinkPad® E16 Gen 3 (Intel®)

### SECURITY & PRIVACY

### Security

### **ThinkShield**

ThinkShield is a comprehensive security solution that encompasses hardware, software, and supply chain components. For more detials, visit <u>here</u>

#### **Security Chip**

Discrete TPM 2.0, TCG certified, FIPS 140-2 certified

#### **Physical Locks**

Kensington® Nano Security Slot™, 2.5 x 6 mm

#### **Smart Card Reader**

No smart card reader

#### **Fingerprint Reader**

- Touch style fingerprint reader integrated in power button, match-on-chip
- No fingerprint reader

#### **BIOS Security**

- NVMe® password
- Power-on password
- Supervisor password
- System management password
- Certificate-based BIOS authentication
- FIDO (Fast Identity Online) authentication
- Self-healing BIOS



- More BIOS security features (Arrow Lake), please visit BIOS Simulator[1]
- More BIOS security features (Raptor Lake), please visit <u>BIOS Simulator[2]</u>

### **Other Security**

- · Camera privacy shutter
- (Optional) IR camera for Windows® Hello (facial recognition)

#### Notes:

[1], [2] The BIOS simulator is just for reference. Default settings and some options may vary depending on the hardware, operating system and BIOS version.

### **MANAGEABILITY**

### **System Management**

### System Management[1]

- Intel® vPro® Enterprise[2]
- Non-vPro®

#### Notes:

[1] Intel® vPro® platform require an eligible Intel® processor, a supported operating system, Intel® LAN and/or WLAN silicon, firmware enhancements, and other hardware and software necessary to deliver the manageability use cases, security features, system performance, and stability that define the platform. See <a href="Intel® vPro® Platform">Intel® vPro® Platform</a> for details. [2] Intel® vPro® offers a superset of DASH's defined capabilities.

### **SERVICE**

# Warranty

#### Base Warranty\*\*

- 1-year mail-in service
- 1-year courier or carry-in service
- 1-year courier or carry-in with 2-year system board service (Korea only)
- 1-vear limited onsite service
- · No base warranty

### **ACCESSORIES**

### **Bundled Accessories**

### Bundled Accessories[1]

- Lenovo® 15.6" laptop casual toploader, polyester
- None

#### Notes:

[1] For more compatible accessory solutions, please visit Accessories for ThinkPad® E16 Gen 3 (Intel®).

### OPERATING REQUIREMENTS

### **Operating Environment**

#### Temperature<sup>[1]</sup>

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage and transportation in original shipping package: -20°C (-4°F) to 60°C (140°F)
- Storage without package: 5°C (41°F) to 43°C (109°F)

#### Relative Humidity

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)
- Storage and transportation: 5% to 95% at wet-bulb temperature 27°C (81°F)

#### Altitude

Maximum altitude (without pressurization): 3048 m (10,000 ft)



Notes:

[1] When you charge the battery, its temperature must be no lower than 10°C (50°F).

### **ENVIRONMENTAL**

## Sustainability

#### Material<sup>[1]</sup>

50% recycled aluminium on top cover

50% PCC recycled plastic used in display panel frame

50% recycled aluminium on metal bottom cover

50% PCC recycled plastic used in PC-ABS bottom cover

90% PCC recycled plastic used in battery pack enclosure

85% PCC recycled plastic used in key caps (backlight)

70% PCC recycled plastic used in key caps (non-backlight)

90% PCC recycled plastic used in speaker enclosure

90% PCC recycled plastic used in standard 65W adapter

FSC certified plastic-free packaging: screen film, accessory box, carton

Bamboo + sugarcane fiber standard / retail packaging

Notes:

[1] PCC: Post Consumer Content, recycled materials from customers.

### **CERTIFICATIONS**

#### 

#### Green Certifications[2]

- ENERGY STAR® 9.0
- EPEAT™ Gold Registered[3]
- ErP Lot 6/26
- RoHS compliant
- TCO Certified, generation 10

#### Notes:

[1] The items listed under the "Green Certifications" section may not only refer to certification but also registration or self-declaration. For ESG & regulatory compliance documents, please visit <a href="https://compliance.lenovo.com">https://compliance.lenovo.com</a>.

[2] EPEAT™ registration and ENERGY STAR® certification are optional and only available on the models with preloaded OS. Please visit <u>epeat.net</u> and <u>energystar.gov</u> for more information.

[3] EPEAT™ is registered where applicable, please visit epeat.net for registration status by country.

### Other Certifications

### **Mil-Spec Test**

MIL-STD-810H military test passed

#### Other Certifications

- (Optional) Eyesafe® Certified 2.0
- (Optional) TÜV Rheinland® Low Blue Light (Software Solution)
- Feature with \*\* means that only one option listed under the feature can be configured on selected models.

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